



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/610,689	06/30/2003	Douglas R. Carrell	MSFT-1961/303999.1	2918
41505 7590 11/14/2007 WOODCOCK WASHBURN LLP (MICROSOFT CORPORATION) CIRA CENTRE, 12TH FLOOR 2929 ARCH STREET PHILADELPHIA, PA 19104-2891			EXAMINER PRICE, NATHAN E	
			ART UNIT 2194	PAPER NUMBER
			MAIL DATE 11/14/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/610,689

Applicant(s)

CARRELL ET AL.

Examiner

Nathan Price

Art Unit

2194

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 August 2007.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11, 14-20, 23-29 and 32-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11, 14-20, 23-29 and 32-36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.


WILLIAM THOMSON
SUPERVISORY PATENT EXAMINER

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

1. This Office Action is in response to communications received 24 August 2007. Claims 1 – 11, 14 – 20, 23 – 29 and 32 – 36 are pending. Previous objections and rejections not included in this Office Action have been withdrawn.

Continued Examination Under 37 CFR 1.114

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 24 August 2007 has been entered.

Interview

3. Attempts to offer Applicant's representative an interview (see interview summary mailed 31 August 2007) were made, but Applicant's representative did not schedule an interview.

Response to Arguments

4. Applicant's arguments with respect to claims 1 – 11, 14 – 20, 23 – 29 and 32 – 36 have been considered but are moot in view of the new ground(s) of rejection.

Drawings

5. The drawings were received on 27 June 2007. These drawings are acceptable.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claim 10 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

7. Based on the conversions of claim 1, it is not clear if all of the requests and replies are transmitted using the same protocol. Furthermore, it is not clear if the first system can communicate according to the second network protocol. If not, then it is not clear how the first request is received from the first system (claim 1).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1 – 6, 8 – 11, 23 – 29 and 32 – 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over CTRC (see reference V on PTO-892 mailed 31 August 2007) in view of Taylor (see PTO-892 mailed 22 August 2006 and 31 August 2007 and PTO-892 mailed with this Office Action) and Coulouris (see PTO-892 mailed with this Office Action).

9. As to claim 1, CTRC teaches a method of enabling a first system to use a second system [p.5 ¶4 – p.6 ¶2] comprising:

receiving, from the first system, a first request directed to the second system, said first request being in a form adapted for the first system but not for the second system [p.5 ¶4 – p.6 ¶2];

performing a first conversion of said first request to produce a second request, said second request being in a form adapted for said second system but not for said first system [p.5 ¶4 – p.6 ¶2];

invoking the processing of said second request by the second system [p.5 ¶4 – p.6 ¶2];

receiving a first reply from the second system [p.5 ¶4 – p.6 ¶2];

performing a second conversion of said first reply to produce a second reply that comprises header information that is usable with an Internet protocol [p.5 ¶4 – p.6 ¶2]; and

providing said second reply to said first system [p.5 ¶4 – p.6 ¶2].

10. CTRC fails to specifically disclose an FMH7 field of an SNA protocol. However, Taylor discloses error information comprising an FMH7 field of an SNA protocol [page 68: FMH7]. When combined, the references disclose that said error-handling object creates header information representative of the contents of said FMH7 field [Taylor: page 68: FMH7], said header information being adapted for use with a TCP protocol [CTRC: p.5 ¶4 – p.6 ¶2; Taylor: page 386 ¶ 2, integration of TCP/IP and SNA]. It would have been obvious to one of ordinary skill in the art at the time Applicant's invention was made to combine these references because both references disclose providing communication between different systems, specifically SNA and TCP/IP.

11. CTRC also fails to specifically disclose a host initiated processing (HIP) system, listeners, HIP proxies and pre-stored configuration information as claimed. However, Taylor discloses said first conversion performed using a host initiated processing (HIP) system that includes one or more listeners for receiving the first request and one or more HIP proxies that handle flow control for the first conversion [p.138 "proxy"; p.314 ¶1; p.909 ¶ for "connection server"]. Furthermore, Coulouris teaches pre-stored configuration information to limit the number of threads that service requests [p.356 ¶4]. When combined with Taylor, the references teach the number of listeners and HIP proxies to use in the first conversion is determined by an HIP runtime service based on pre-stored configuration information. It would have been obvious to one of ordinary skill

in the art at the time Applicant's invention was made to combine these teachings because Coulouris teaches details of servers that are applicable to CTRC and Taylor.

12. As to claim 2, CTRC discloses that said first request comprises a datum in a first format, and wherein said act of performing said first conversion comprises converting said datum to a second format different from said first format, said second request comprising said datum in said second format [p.5 ¶4 – p.6 ¶2].

13. As to claim 3, CTRC discloses that said first request comprises a datum having a first type and wherein said act of performing said first conversion comprises converting said datum to a second type different from said first type, said second request comprising said datum in said second type [p.5 ¶4 – p.6 ¶2].

14. As to claim 4, CTRC discloses that said first type is supported in said first system but not in said second system [p.5 ¶4 – p.6 ¶2].

15. As to claim 5, CTRC discloses that said second type differs structurally from said first type in at least one aspect [p.5 ¶4 – p.6 ¶2].

16. As to claim 6, CTRC discloses that said first request comprises a call using a first mechanism to a software object in the second system, and wherein said act of

Art Unit: 2194

performing said first conversion comprises converting said call for use with a second mechanism different from said first mechanism [p.5 ¶4 – p.6 ¶2].

17. As to claim 8, CTRC discloses that said first request comprises a remote call according to a first protocol, wherein said second request comprises a remote call according to a second protocol different from said first protocol, and wherein said act of performing said first conversion comprises preparing said second request to correspond substantively with said first request and to work in accordance with said second protocol [p.5 ¶4 – p.6 ¶2].

18. As to claim 9, CTRC discloses that said first protocol calls for invocation to be performed with a bidirectional interaction between a caller and a callee, wherein said second protocol calls for an invocation to be performed in a unidirectional call message from said caller to said callee [p.4 ¶5; p.5 ¶4 – p.6 ¶2], and wherein said act of preparing said second request comprises:

- engaging in an interaction with the caller on the first system to obtain information relating to a call [p.5 ¶4 – p.6 ¶2];
- collecting said information [p.5 ¶4 – p.6 ¶2]; and
- preparing said second request using the collected information [p.5 ¶4 – p.6 ¶2].

Art Unit: 2194

19. As to claim 10, CTRC discloses said first system is adapted to communicate a remote call according to a first network protocol, and wherein said first and second requests, and said first and second replies, are transmitted using a second network protocol different from said first network protocol, and wherein said acts of performing first and second conversions comprise: including in said second request and said second reply header information that corresponds to information that is contained in requests or replies according to said first protocol [p.5 ¶4 – p.6 ¶2].

20. As to claim 11, CTRC discloses that said first request comprises a call to a software object in said second system, and wherein the form of said first request is adapted for making requests from the first system to a remote system that is of the same type of environment as the first system [p.5 ¶4 – p.6 ¶2].

21. As to claims 23 – 25 and 32, see the rejection of claim 1.

22. As to claim 26, CTRC fails to specifically disclose queuing as claimed. However, Taylor discloses a queuing object that executes on said hardware and that queues at least one of connections and requests from the first system [p.44 ¶4 – 5].

23. As to claim 27, CTRC discloses that the service object comprises a transit object that receives information related to the first request from the first software object and

Art Unit: 2194

prepares the information into a form that can be used for a call to the second software object [p.5 ¶4 – p.6 ¶12].

24. As to claim 28, CTRC discloses that the service object comprises an invocation object that lays out the information prepared by the transit object into a form that can be used for a call to the second software object, and that uses the laid out information to invoke the second software object [p.5 ¶4 – p.6 ¶12; p.7 ¶12].

25. As to claim 29, CTRC fails to specifically disclose a flow control object as claimed. However, Taylor discloses that the service object comprises a flow control object that manages the interaction of one or more components involved in the conversion of the first request into the second request [p.922 “expedited flow”; p.925 “flow control”].

26. As to claims 33, 35 and 36, see the rejection of claim 1.

27. As to claim 34, see the rejection of claim 2.

28. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over CTRC in view of Taylor and Coulouris as applied to claim 1 above, and further in view of Lymer et al. (US 6,230,117 B1; hereinafter Lymer).

Art Unit: 2194

29. As to claim 7, CTRC fails to specifically disclose a commarea as claimed.

However, Lymer discloses that said first mechanism comprises a commarea that is used to pass a call parameter to said object and to receive a result from said object, and wherein said second mechanism comprises: a first area that is used to pass said call parameter, or a converted call parameter that corresponds to said call parameter, to said object; and a second area that is used to receive said result, or a converted result that corresponds to said result, from said object [Fig. 1; col. 3 line 61 - col. 4 line 4]. It would have been obvious to one of ordinary skill in the art at the time Applicant's invention was made to combine these references because both focus on interfacing between different computing environments.

30. Claims 14 – 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Marcos et al. (US 6,347,342 B1; hereinafter Marcos) in view of CTRC (see reference V on PTO-892 mailed 31 August 2007), Taylor (see PTO-892 mailed 22 August 2006 and 31 August 2007 and PTO-892 mailed with this Office Action) and Coulouris (see PTO-892 mailed with this Office Action).

31. As to claim 14, Marcos discloses a method of enabling a first software object in a first system to call a second software object in a second system [col. 4 lines 14 - 20], the method comprising:

evaluating first information that the first software object exposes when making a call to a remote system [col. 6 lines 50 - 65];

evaluating second information that the second software object exposes when receiving a call from a remote system [col. 7 lines 6 - 43];

generating conversion information descriptive of a process to be followed in order to convert the first information into a form compatible with the second information [col. 6 lines 50 - 65; col. 7 lines 6 - 43];

providing the conversion information to a conversion service that uses the conversion information to convert a first call from the first object into a call in a form usable by the second object [col. 6 lines 50 - 65; col. 7 lines 6 - 43].

32. The combination of Marcos, CTRC and Taylor teaches conversion information describing the conversion of an FMH7 field in an SNA protocol into header information usable with a TCP protocol for the reasons in the rejection of claim 1. It would have been obvious to one of ordinary skill in the art at the time Applicant's invention was made to combine these references because Marcos discloses providing communication between different systems without restricting the type of system or protocol, but does provide TCP/IP as a specific example [col. 4 lines 15 - 25; col. 8 lines 39 - 44] and CTRC and Taylor discloses integration of specific protocols. See the rejection of claim 1 regarding limitations not specifically addressed in this rejection.

33. As to claim 15, Marcos discloses that the first information comprises a call parameter in a first format, wherein the second information comprises a call parameter in a second format, and wherein the act of generating conversion information comprises

Art Unit: 2194

generating code or data that describes how to convert a call parameter from the first format to the second format [col. 7 lines 6 - 23; col. 17 lines 9 - 21].

34. As to claim 16, Marcos discloses that the first information comprises a call parameter of a first data type which is not usable by the second software object [col. 15 line 62 - col. 16 line 4], and wherein the act of generating conversion information comprises:

generating a second data type that corresponds to the first data type and which is usable by the second software object [col. 7 lines 6 - 43];

generating code or data that describes how to convert data of the first data type to the second data type [col. 7 lines 6 - 43].

35. As to claim 17, Marcos discloses that the first information comprises a return value in a first form, wherein the second information comprises a return value in a second form different from said first form, and wherein the act of generating conversion information comprises generating code or data that describes how to convert data in said first form to said second form [col. 4 lines 14 - 20; col. 7 lines 6 - 43, 55 - 67].

36. As to claim 18, Marcos discloses that said first software object makes a call to a remote system according to a first programming model, wherein said second data object receives a call from a remote system according to a second programming model, and wherein the act of generating conversion information comprises generating code or

Art Unit: 2194

data that indicates which programming model the first software object uses to make a remote call [col. 7 lines 24 - 43].

37. As to claim 19, Marcos discloses that the act of generating conversion information comprises generating code or data that describes at least one customization in converting from the first programming model to the second programming model [col. 7 lines 6 - 43].

38. As to claim 20, Marcos discloses that the act of generating conversion information comprises generating a transaction initiation message that is used in invoking the second software object or in reply to the first software object [col. 7 lines 6 - 23; col. 10 line 43 - col. 11 line 14].

Conclusion

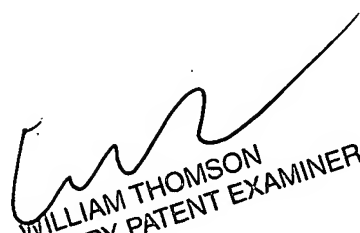
39. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathan Price whose telephone number is (571) 272-4196. The examiner can normally be reached on 6:00am - 2:30pm, Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Thomson can be reached on (571) 272-3718. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2194

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

NP


WILLIAM THOMSON
SUPERVISORY PATENT EXAMINER